CLAIMS:

1. A discharge lamp with a reflector (1) and an asymmetrical burner, which reflector (1) comprises at least a reflecting surface (3) and a hollow reflector neck (4), while the asymmetrical burner is partly arranged in said hollow reflector neck (4) without making contact therewith, characterized in that the shape and the size of the inner contour (6) of the reflecting surface (3) of the reflector (1) corresponds substantially to the contour of the asymmetrical burner, and in that the asymmetrical burner is centrally located in the reflector (1).

2. A discharge lamp as claimed in claim 1, characterized in that the inner contour (6) of the reflecting surface (3) is symmetrical with respect to the x-axis and asymmetrical with respect to the y-axis.

3. A discharge lamp as claimed in claim 2, characterized in that the inner contour (6) of the reflecting surface (3) has the shape of an ellipse or of a rectangle with rounded corners, or is formed by semicircular arcs and straight lines.

4. A discharge lamp as claimed in claim 1, characterized in that the inner contour (6) of the reflecting surface (3) is adapted to the contour of the asymmetrical burner such that the surface area of the reflecting surface (3) reaches a maximum.

5. An optical waveguide system serving as a lighting system for motor vehicles, comprising at least one light source which is a discharge lamp having a reflector and an asymmetrical burner, characterized in that a discharge lamp as claimed in the claims 1 to 4 is used.

6. An optical waveguide system as claimed in claim 5, characterized in that the asymmetrical burner is a burner (2) with a return pole (5).